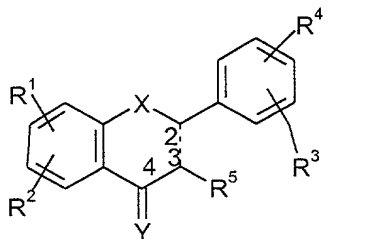


Patent Claims

1. A compounds of the formula I



where

X is O, S or NH;

Y is O, S or NH;

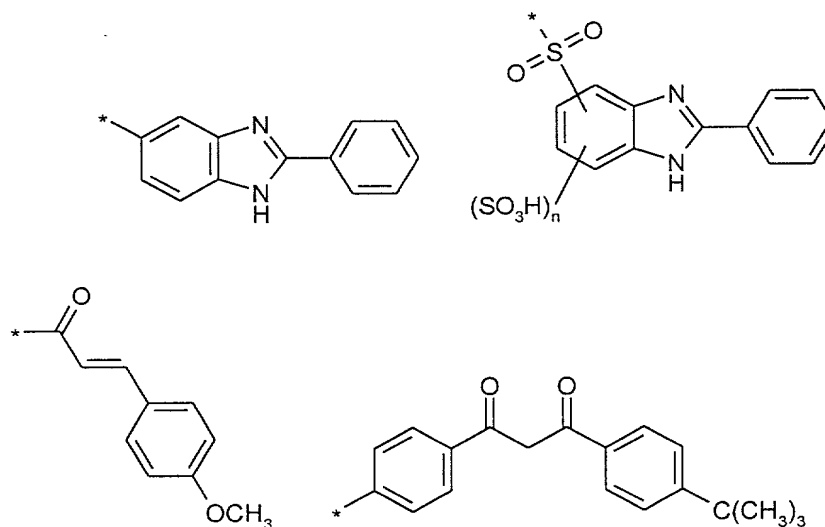
a single or double bond may be provided between carbons C-2 and C-3,

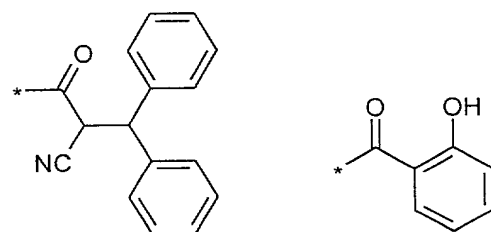
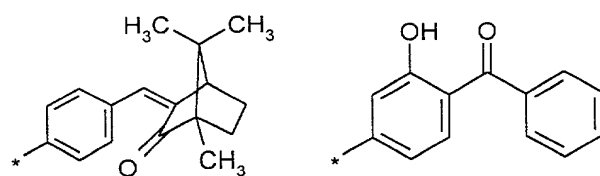
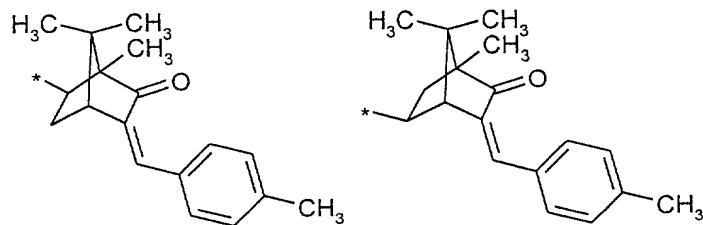
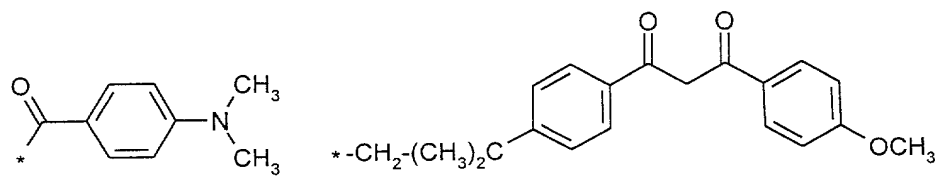
R¹ and R², and R³ and R⁴ may be provided at any positions on the ring, and also

R¹, R², R³, R⁴ and R⁵ may be identical or different and independently of one another are -H, -OH or -OA,

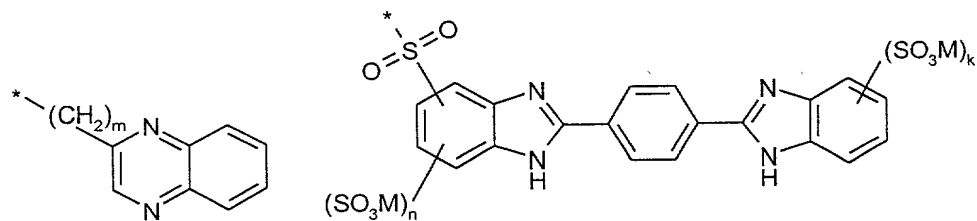
and

A is a group which absorbs UV radiation selected from the group formed from:





5



where $n = 0, 1, 2$ or 3

$m = 0$ or 1

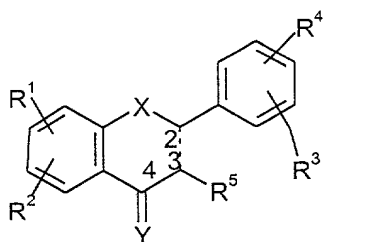
10 $k = 0, 1, 2, 3$ or 4

$M = H, Na$ or K

and at least one of the groups R^1, R^2, R^3, R^4 or R^5 is formed by $-OA$.

15

2. A compound of formula I



5 where

X is O, S or NH;

Y is O, S or NH;

a single or double bond may be provided between carbons C-2 and C-3,

10 R¹ and R², and R³ and R⁴ may be provided at any positions on the ring, and also

R¹, R², R³, R⁴ and R⁵ may be identical or different and independently of one another are -H, -OH or -OA,

in addition R¹, R², R³, R⁴ and R⁵, independently of one another, can stand for a

15 • straight-chain or branched oxyalkyl or carboxyalkyl group having 1 to 12 carbon atoms,

• straight-chain or branched oxyalkenyl or carboxyalkenyl group having 2 to 12 carbon atoms,

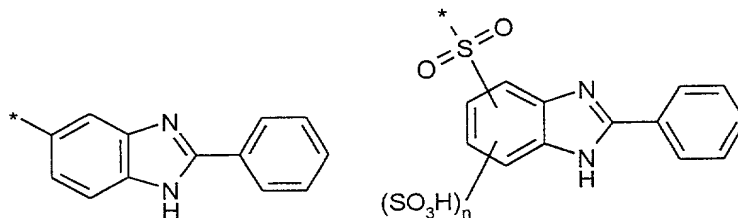
20 • straight-chain or branched hydroxyoxyalkyl group having 1 to 12 carbon atoms, where the hydroxyl group may be bonded to a primary or secondary carbon atom and, furthermore, the alkyl chain can also be interrupted by oxygen,

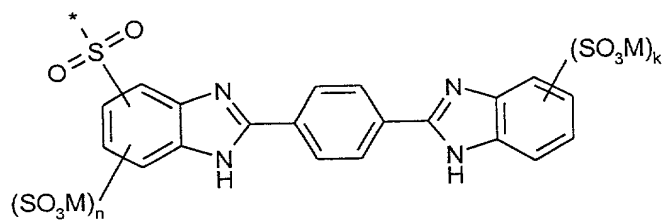
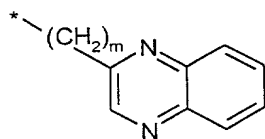
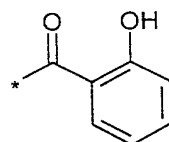
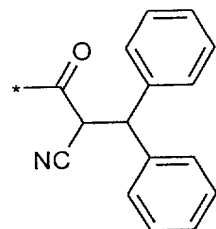
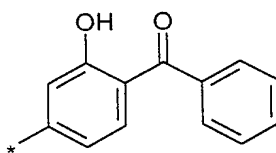
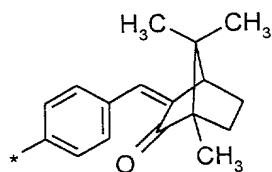
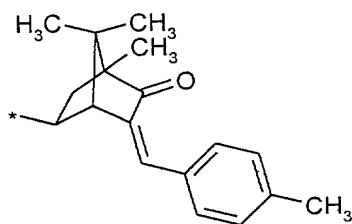
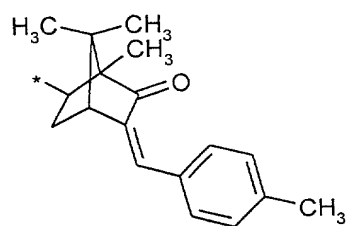
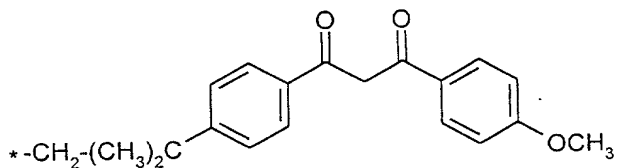
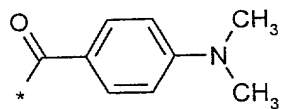
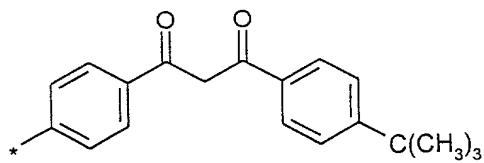
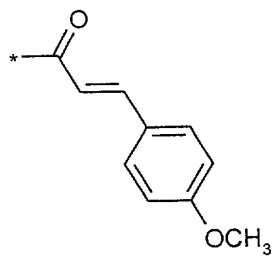
• sulphate group,

• phosphate group

25 • and a mono- or oligoglycosyl radical, and

A is a group which absorbs UV radiation selected from the group formed from:





where n = 0, 1, 2 or 3

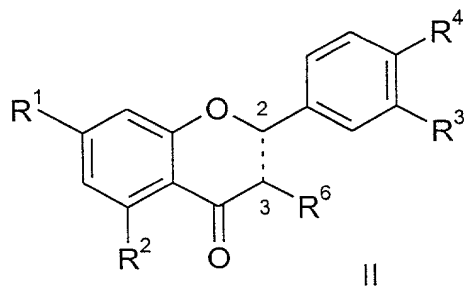
$m = 0$ or 1

$k = 0, 1, 2, 3$ or 4

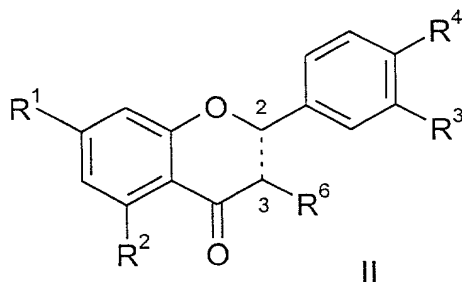
$M = H, Na$ or K

5 and at least one of the groups R^1, R^2, R^3, R^4 or R^5 is formed by $-OA$.

3. A compound according to Claim 1, wherein said compound is of formula II



4. A compound according to Claim 2, wherein said compound is of formula II



15 5. In a cosmetic or pharmaceutical formulation comprising an active ingredient and a physiologically acceptable carrier, the improvement wherein said formulation comprises at least one compound according to Claim 1.

20 6. In a cosmetic or pharmaceutical formulation comprising an active ingredient and a physiologically acceptable carrier, the improvement wherein said formulation comprises at least one compound according to Claim 2.

25 7. In a cosmetic or pharmaceutical formulation comprising an active ingredient and a physiologically acceptable carrier, the improvement wherein said formulation comprises at least one compound according to Claim 3.

8. In a cosmetic or pharmaceutical formulation comprising an active ingredient and a physiologically acceptable carrier, the improvement wherein said formulation comprises at least one compound according to Claim 4.

5 9. A cosmetic formulation according to Claim 5, where the formulation comprises one or more additional UV filters and/or antioxidants.

10. A cosmetic formulation according to Claim 6, where the formulation comprises one or more additional UV filters and/or antioxidants.

10

11. A method for protecting the body's cells of a patient against oxidative stress, in particular for reducing skin ageing, comprising administering to said patient a formulation according to claim 5.

15

12. A method for protecting the body's cells of a patient against oxidative stress, in particular for reducing skin ageing, comprising administering to said patient a formulation according to claim 6.

20

13. An enriched foodstuff comprising a foodstuff and at least one compound according to Claim 1.

25 14. An enriched foodstuff comprising a foodstuff and at least one compound according to Claim 2.

15. A compound according to Claim 1 as medicaments.

30 16. A compound according to Claim 2 as medicaments.

17. Use of a compound according to Claim 2 for the preparation of a medicament against oxidative stress, in particular for reducing skin ageing.

35 18. Use of a compound according to Claim 2 for the preparation of a medicament for the treatment of inflammations or allergic reactions.

19. Use of a compound according to Claim 2 as antioxidant, in particular for cosmetic formulations.

Year	Age	Sex	Location	Species	Count	Notes
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1982	11	F
1983	12	M
1984	13	F
1985	14	M
1986	15	F
1987	16	M
1988	17	F
1989	18	M
1990	19	F
1991	20	M
1992	21	F
1993	22	M
1994	23	F
1995	24	M
1996	25	F
1997	26	M
1998	27	F
1999	28	M
2000	29	F
2001	30	M
2002	31	F
2003	32	M
2004	33	F
2005	34	M
2006	35	F
2007	36	M
2008	37	F
2009	38	M
2010	39	F
2011	40	M
2012	41	F
2013	42	M
2014	43	F
2015	44	M
2016	45	F
2017	46	M
2018	47	F
2019	48	M
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